Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

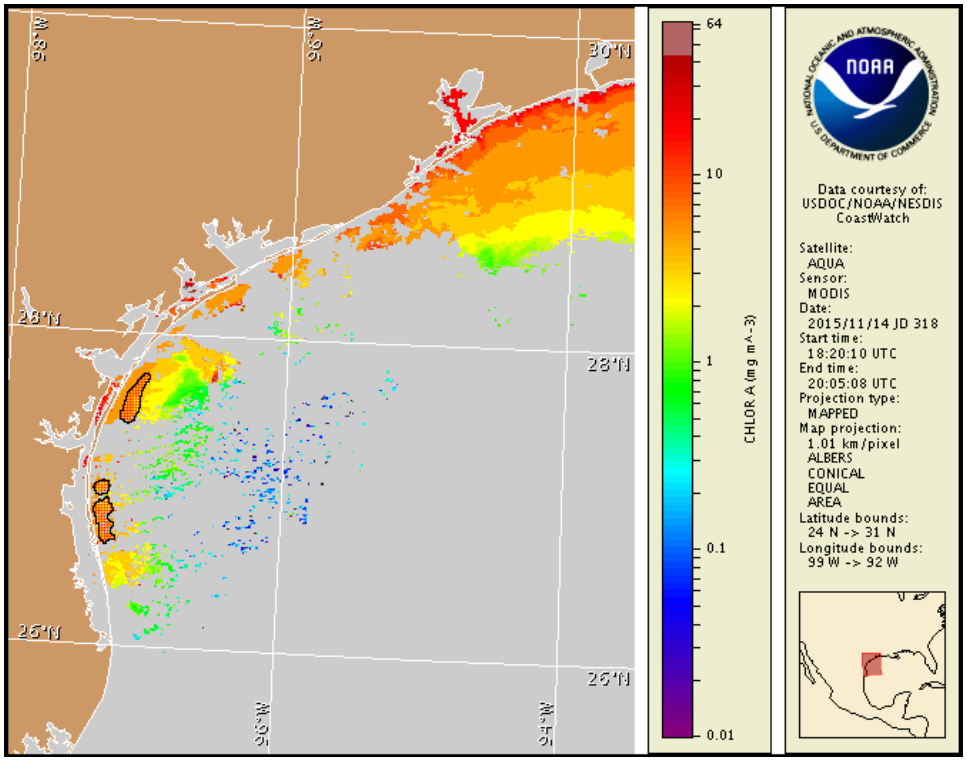
Monday, 16 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 12, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 6 to 13: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

---

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast from Matagorda Bay to the Rio Grande. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Monday, November 16 through Thursday, November 19 is listed below:

Region: Forecast (Duration)
Matagorda Peninsula region: Low (M-Tu), Very Low (W-Th)
Matagorda Island region: Low (M-Tu), Very Low (W-Th)
Bay region-Matagorda Bay: High (M-Th)
Bay region-San Antonio to Espiritu Santo Bay: High (M-Th)
Bay region-Aransas Bay to Aransas Pass: Low (M-Th)
Bay region-Corpus Christi Bay: High (M-Th)
Aransas Pass to PINS region: Low (M-Th)
Bay region-Upper Laguna Madre: Very Low (M-Th)
Padre Island National Seashore region: High (M-Tu) Moderate (W-Th)
Mansfield Pass to Beach Access 6 region: Very Low (M-Tu) Low (W-Th)
Bay region-Lower Laguna Madre to Laguna Vista: Low (M-Th)
Beach Access 6 to Rio Grande region: Very Low (M, W-Th) None (Tu)
All Other Texas Regions: None expected (M-Th)

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

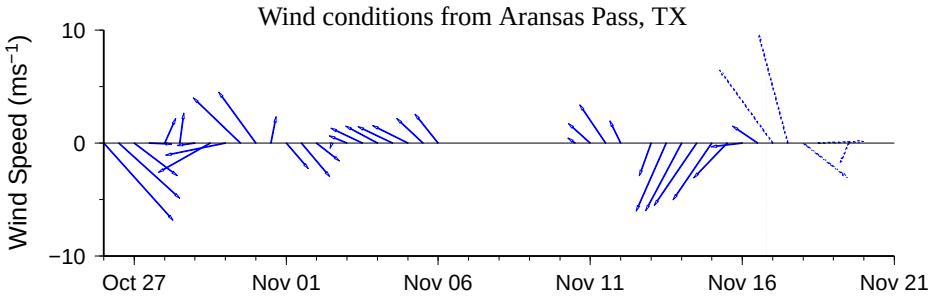
Analysis

Karenia brevis concentrations range from 'background' to 'high' from Matagorda Bay to the Rio Grande. No new samples have been received over the past two weeks. Samples from Nov. 2-4 indicated that *K. brevis* concentrations were up to 'high' within Matagorda and San Antonio Bays, 'low a' alongshore Matagorda Peninsula, 'low a' in Aransas Bay, 'high' in Corpus Christi Bay, 'very low b' within the Upper Laguna Madre, and up to 'very low a' near Brazos Santiago Pass (TPWD). Samples from Nov. 3-4, from alongshore Padre Island National Seashore to South Padre Island indicated up to 'medium' *K. brevis* concentrations (TPWD). Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at: http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

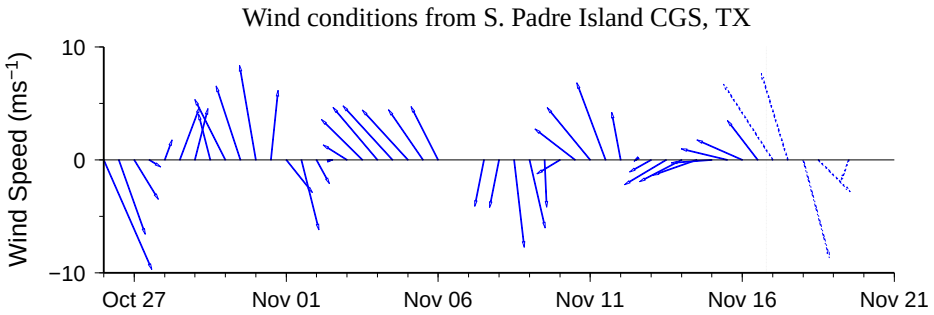
Recent MODIS Aqua imagery (11/14, shown left) is mostly obscured by clouds from Freeport to the Rio Grande. Where visible along- and offshore the Texas coast from Sabine Pass to the Rio Grande, chlorophyll levels are at elevated to high (3-15 μg/L).

Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 60 km south from Pass Cavallo, 60 km south from Aransas Pass, and 70 km south from Brazos Santiago Pass, from November 14 to November 19.

-Urízar, Lalime



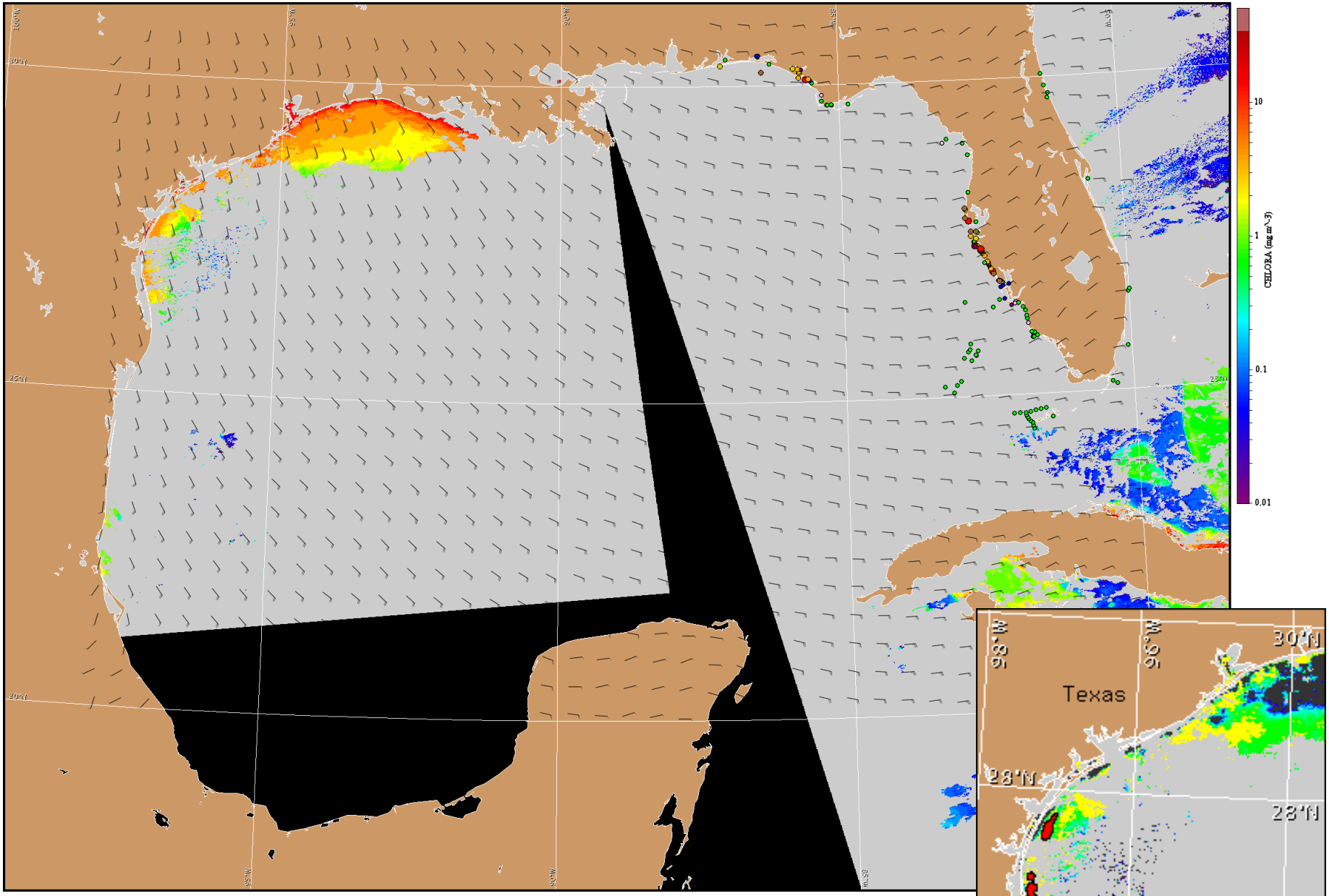
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Port Aransas to Baffin Bay: Southeasterly winds (10-20 kn, 5-10 m/s) today becoming south (20-25 kn, 10-13 m/s) after midnight. Southwesterly winds (20-25) Tuesday becoming northwesterly (15-20 kn, 8-10 m/s) in the afternoon and northerly (10-20 kn) Tuesday night. Northwesterly to northerly winds (5-10 kn, 3-5 m/s) Wednesday and southeasterly winds (5-10 kn) Wednesday night. Easterly winds (5-15 kn, 3-8 m/s) Thursday.

Port Mansfield to the Rio Grande: Southeasterly to southerly winds (15-23 kn, 8-12 m/s) today. Variable winds (10-24 kn, 5-12 m/s) Tuesday. Northwesterly to northeasterly winds (7-13 kn, 4-7 m/s) Wednesday and easterly winds (7-9 kn, 4-5 m/s) Wednesday night. Southeasterly winds (8-13 kn, 4-7 m/s) Thursday.



Satellite chlorophyll image and forecast winds for November 17, 2015 12Z with points representing cell concentration sampling data from November 6 to 13: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).